



# SZABO SCANDIC

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Forschungsprodukte & Biochemikalien



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Laborgeräte & Service

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### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

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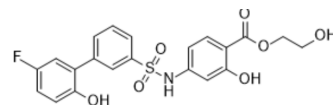
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## KAN0438757

|                    |                                                                                                  |
|--------------------|--------------------------------------------------------------------------------------------------|
| Cat. No.:          | HY-112808                                                                                        |
| CAS No.:           | 1451255-59-6                                                                                     |
| Molecular Formula: | C <sub>21</sub> H <sub>18</sub> FN <sub>2</sub> O <sub>7</sub> S                                 |
| Molecular Weight:  | 447.43                                                                                           |
| Target:            | Autophagy                                                                                        |
| Pathway:           | Autophagy                                                                                        |
| Storage:           | Powder    -20°C    3 years<br>4°C    2 years<br>In solvent   -80°C    2 years<br>-20°C    1 year |



### SOLVENT & SOLUBILITY

|                                                                               |                                                                                                                                                          |                                                       |      |           |            |            |
|-------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|------|-----------|------------|------------|
| In Vitro                                                                      | DMSO : 130 mg/mL (290.55 mM; Need ultrasonic)                                                                                                            |                                                       |      |           |            |            |
|                                                                               | Preparing Stock Solutions                                                                                                                                | <div><div>Solvent</div><div>Concentration</div></div> | Mass | 1 mg      | 5 mg       | 10 mg      |
|                                                                               |                                                                                                                                                          | 1 mM                                                  |      | 2.2350 mL | 11.1749 mL | 22.3499 mL |
|                                                                               |                                                                                                                                                          | 5 mM                                                  |      | 0.4470 mL | 2.2350 mL  | 4.4700 mL  |
|                                                                               |                                                                                                                                                          | 10 mM                                                 |      | 0.2235 mL | 1.1175 mL  | 2.2350 mL  |
| Please refer to the solubility information to select the appropriate solvent. |                                                                                                                                                          |                                                       |      |           |            |            |
| In Vivo                                                                       | 1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline<br>Solubility: 2.17 mg/mL (4.85 mM); Clear solution; Need ultrasonic |                                                       |      |           |            |            |
|                                                                               | 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)<br>Solubility: ≥ 2.17 mg/mL (4.85 mM); Clear solution                           |                                                       |      |           |            |            |
|                                                                               | 3. Add each solvent one by one: 10% DMSO >> 90% corn oil<br>Solubility: ≥ 2.17 mg/mL (4.85 mM); Clear solution                                           |                                                       |      |           |            |            |

### BIOLOGICAL ACTIVITY

|                           |                                                                                                                                                                                                                                                                                                    |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description               | KAN0438757 is a potent and selective inhibitor of the metabolic kinase PFKFB3 with an IC <sub>50</sub> of 0.19 μM <sup>[1]</sup> .                                                                                                                                                                 |
| IC <sub>50</sub> & Target | IC <sub>50</sub> : 0.19 μM (PFKFB3) <sup>[1]</sup>                                                                                                                                                                                                                                                 |
| In Vitro                  | KAN0438757 (72 h) inhibits cell viability of Miapaca-2, PANC1, SW620, U-266, AMO-1 (IC <sub>50</sub> : 2.75, 3.83, 7.50, 5.08, 11.53 μM respectively) <sup>[1]</sup> .<br>KAN0438757 (10 μM, 6 h) decreases homologous recombination (HR) activity and increases ionizing radiation (IR) induced γ |

|                |                                                                                                                                                                                                                                                                                                                                                                                                                 |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                | <p>H2AX foci level in U2OS cells<sup>[1]</sup>.</p> <p>KAN0438757 (50 <math>\mu</math>M, 12 h) reduces PFKFB3 protein expression in HCT-116, SW-1463 and HUVECs<sup>[2]</sup>.</p> <p>KAN0438757 (0-50 <math>\mu</math>M, 24 h) reduces glycolysis in HCT-116 cancer cells and HUVECs<sup>[2]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> |
| <b>In Vivo</b> | <p>KAN0438757 (i.p., 10; 25; 50 mg/kg) is well tolerated, and shows no relevant systemic toxic effects in C57BL6/N mice<sup>[2]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>                                                                                                                                                               |

## CUSTOMER VALIDATION

- Cell Prolif. 2022 Sep 20;e13337.
- Oxid Med Cell Longev. 2022 Sep 21;2022:7548145.

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## REFERENCES

- [1]. De Oliveira T, et al. Effects of the Novel PFKFB3 Inhibitor KAN0438757 on Colorectal Cancer Cells and Its Systemic Toxicity Evaluation In Vivo. Cancers (Basel). 2021 Feb 28;13(5):1011.
- [2]. Gustafsson NMS, et al. Targeting PFKFB3 radiosensitizes cancer cells and suppresses homologous recombination. Nat Commun. 2018 Sep 24;9(1):3872.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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